

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

APPELLANTS' REPLY BRIEF UNDER 37 C.F.R. § 41.41

In re the Application of: **Harper et al.**
Application No.: **10/797,646**
Filed: **March 10, 2004**
Group Art Unit: **2457**
Examiner: **Rubin, Blake J.**
For: **REDUCED DATA SESSION ESTABLISHMENT TIME IN
CDMA-2000 NETWORKS**
Attorney Docket No.: **111244.162US1**

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I. STATUS OF CLAIMS

Claims 2, 14 and 15 have been cancelled. The remaining claims in the application, claims 1, 3-13, and 16-23, have been rejected and are being appealed herein.

II. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- A. Whether claims 1, 3, 6-11, 13, and 16-23 are rendered obvious under 35 U.S.C. § 103(a) by U.S. Patent No. 6,904,033 issued to Perras et al. (Perras), in view of U.S. Patent Application Publication No. 2003/0158959 disclosed by Jayapalan et al. (Jayapalan).
- B. Whether claims 4, 5, and 12 are rendered obvious under 35 U.S.C. §103(a) by Perras in view of Jayapalan, and further in view of U.S. Patent No. 6,005,852 issued to Kokko et al. (Kokko).

III. RESPONSE TO EXAMINER'S ARGUMENTS

These remarks are responsive to the Examiner's Answer of August 4, 2010. No new grounds of rejection were added by the Examiner.

These remarks particularly address

(1) the dispute over when the wait time occurs; and

(2) the Examiner's statement of "impossibility" – which actually reflects the Examiner's misperception of what the claims are about.

A. Overview

As stated in the Appellant's Brief, the application concerns waiting a time period after a registration request (e.g., originating ultimately from a third party) to allow establishment of a radio air link between a mobile subscriber (not the requesting party) and a packet data server. After the packet data server gets the registration request, the wait time permits the radio air link to be successfully established between the mobile subscriber and the packet data server before sending a link configuration request to the mobile device. If the link configuration request is sent to the mobile device before the radio air link is established, an undesirable timeout can occur. After the data link is established, data can be sent to the mobile subscriber.

B. The wait time occurs one stage prior to the wait time in Jayapalan

With respect to the Examiner's response to Appellants regarding claims 1, 16, and 18, the Examiner continues to focus on a different wait time than the wait time provided by the application and claims. The Examiner cites Jayapalan as providing "a wait time prior to establishing a point to point connection between two peers." Examiner's Answer of August 4, 2010, p. 13 ll. 11-12. However, the point-to-point connection found in Jayapalan is different from a radio air link because it is an OSI Layer 2 data link connection, not an OSI Layer 1 physical layer connection.

The point-to-point connection in Jayapalan is a connection made between two peers using the point-to-point protocol (PPP). PPP is a mechanism for establishing a data link (OSI Layer 2),

which runs on top of a physical layer link (OSI Layer 1).¹ This is described in IETF RFC 1661, which describes and specifies PPP. Nowhere does Jayapalan discuss a physical Layer 1 link. However, the Layer 1 link is the link at issue in Appellants' claims.

Paragraph [0024] of Jayapalan states, "In particular, the network element starts monitoring after the physical links (i.e., between an MS and IWU and network element) have been established." Jayapalan further describes the operation of the network element, which consists of "inspect[ing] every packet that passes through it looking for packets that contain a PPP header indicating status as a control message or a data message. If a control message...is not detected...the network element waits a configurable predetermined period of time." Jayapalan, paragraph [0024]. Since packets are passing through the network, we can infer that a physical link has already been established before the network element performs the waiting step. Therefore the Examiner has not provided a wait time before the physical link.

In summary, the Examiner is arguing that Jayapalan provides a wait time and that it occurs before a point-to-point connection is established. Jayapalan's wait time is after the physical layer is established and before the PPP connection is established. However, Appellants' wait time occurs one stage prior to the wait time of Jayapalan. Appellants' wait time is before both the physical layer and PPP connection are established.

C. Response to Examiner's Assertion of Impossibility

The Examiner's comments suggest a misunderstanding in how the claims should be construed and applied. The Examiner asserts that an embodiment wherein negotiation is accomplished prior to any radio air link communication would be impossible. Examiner's Answer, p. 14, ll. 17-20 ("If the applicant insists that such a negotiation is accomplished prior to any radio air link communication taking place, the Examiner contends that such an embodiment is impossible if the connecting party wishes to communicate strictly via a wireless connection"). This is in reference to the language of claim 1, "receiving a registration request at a packet data

¹ Applicants' Appeal Brief filed June 1, 2010 incorrectly stated that PPP is an OSI Layer 3 protocol instead of a Layer 2 protocol. The argument is otherwise unaffected.

server to register a data communication session between the packet data server and the mobile subscriber prior to a radio air link being established with the mobile subscriber.”

It is true that one cannot negotiate prior to the establishment of a radio link. However, the fact that the Examiner takes this position shows that he does not understand the position Appellants are taking, specifically, that the packet data server in claim 1 receives a registration request from a third party, not from a mobile subscriber.

The Examiner appears to be under a mistaken impression that the mobile subscriber is the component that is sending the registration request. Paragraph [0015] of the specification reads as follows:

[0001] To negotiate an IP data session to the point where data can be passed along the session, PCF 150 and PDSN 160 first signal one another according to a predetermined signaling scheme (A11) to register the data session. *Following the PCF-PDSN registration transaction, PDSN 160 exchanges signals with MS 110 according to the Link Configuration Protocol (LCP).* PPP provides the LCP for establishing, configuring and testing the data link connection. LCP is used to automatically negotiate the encapsulation format options between PDSN 160 and MS 110, handle varying limits on sizes of packets, detect a looped-back link and configuration errors, and terminate the link. ...

This paragraph makes it clear that the data session with the mobile subscriber initially involves a third party requestor, namely, the packet control function (PCF). The PCF first negotiates with the PDSN to register the data session, and the PDSN then exchanges signals with the mobile subscriber. This corresponds to the language in claim 1, which states: “receiving a registration at a packet data server [from a PCF or third party requestor] to register a data communication session between the packet data server and the mobile subscriber...” This occurs prior to the establishment of the air link because the PCF and the PDSN may be connected over a service provider’s network via a wireline network.

Additionally, Paragraph [0017] of the specification reads as follows:

[0002] **Figure 2** illustrates a sequence of signals exchanged between an MS 110, PCF 150, and PDSN 160 to establish a data

session. MS 110 initiates a call to the network, through its base station BTS 120 and base station controller BSC 130. PCF 150 receives a notification of the request and contacts PDSN 160 with an A11 “registration request” signal 210, requesting a data session to be established. PDSN 160 responds with an A11 “registration reply” signal 212 to accept or reject the data session. ***When PCF 150 receives a favorable (acceptance) registration reply from PDSN 160, PCF 150 acts to establish a radio air link 215 with MS 110, allowing MS 110 to communicate with PDSN 160.***

As this detailed sequence of events in the specification shows, it is the third party packet control function (PCF) that is requesting to the packet data server to set up a data communications session with a mobile subscriber. This common case may take place either when another user on the network makes a call to the mobile subscriber and needs to establish a data communication session, or when the mobile subscriber himself desires to initiate a data communication session. The negotiation between the third party and the packet data server is accomplished prior to any radio link communication between the packet data server and the mobile subscriber. The wait time in this case takes place after the communication from the PCF to the packet data server, but prior to any communication from the packet data server to the mobile subscriber which may require an air link.

Thus the Examiner’s assertion of impossibility is based on a misunderstanding of what the claims cover.

IV. CONCLUSION

For the reasons set forth above, Appellants respectfully request that the Board reverse the outstanding rejections, remand the application to the Examiner, and direct the Examiner to issue a Notice of Allowance.

If the Examiner contends that the claim would be patentable with clarifying language, the undersigned would welcome any dialogue toward a resolution.

The Commissioner is hereby authorized to charge any fees now required to maintain the pendency of the application to Deposit Account No. 08-0219.

Respectfully submitted,

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